

**Notice of Allowability**

Application No.

10/706,622

Examiner

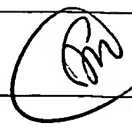
Andy Huynh

Applicant(s)

ZHU ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

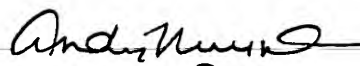
1. ☒ This communication is responsive to the Amendment dated 03/07/05.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☒ The drawings filed on 12 November 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Patent Examiner  
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### **DETAILED ACTION**

In the Amendment dated March 07, 2005, the specification and claims **2, 21 and 33** are amended is acknowledged. Claims **1-33** are currently pending in this application.

#### ***Allowable Subject Matter***

Claims **1-33** are allowed.

The following is an examiner's statement of reason for allowance:

Claims **1-11** are allowable over the prior art of record because the prior art of record does not teach or render obvious a magnetic memory element, comprising a plurality of stacked, closed-ended layers defining an opening therethrough, wherein the plurality of layers includes a storage magnetic layer having two conjugate segments with opposing magnetic helicities, and in combination with all other features as recited in independent claim **1**.

Claims **12-16** are allowable over the prior art of record because the prior art of record does not teach or render obvious a memory cell comprises a storage magnetic layer having two conjugate segments with opposing magnetic helicities, and in combination with all other features as recited in independent claim **12**.

Claims **17-21** are allowable over the prior art of record because the prior art of record does not teach or render obvious a memory device, comprising a plurality of magnetic memory elements, each magnetic memory element including a plurality of stacked, closed-ended layers defining an opening therethrough, wherein the plurality of layers includes a storage magnetic layer having two conjugate segments with opposing magnetic helicities, and in combination with all other features as recited in independent claim **17**.

Claims 22-29 are allowable over the prior art of record because the prior art of record does not teach or render obvious a memory device comprising a plurality of memory cells, each memory cell including a magnetic memory element including a plurality of stacked, closed-ended layers defining an opening therethrough, wherein the plurality of layers includes a storage magnetic layer having two conjugate segments with opposing magnetic helicities, and in combination with all other features as recited in independent claim 22.

Claims 30-33 are allowable over the prior art of record because the prior art of record does not teach or render obvious a computing device wherein the plurality of layers includes a storage magnetic layer having two conjugate segments with opposing magnetic helicities, and in combination with all other features as recited in independent claim 30.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy Huynh whose telephone number is (571) 272-1781. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ah

04/07/05



Andy Huynh

Patent Examiner